



Information Technology Laboratory

Spatial Data Standards for Facilities, Infrastructure, and Environment

Background Lack of consistency in CADD and GIS applications can result in costly expenditures, needless duplication of efforts, and increased risk of errors on projects. A uniform method of collecting and managing geospatial data reduces the possibility of these problems impacting a project. The American National Standards Institute's (ANSI) Committee for Information Technology Standards has approved the Spatial Data Standards for Facilities, Infrastructure, and Environment as NCITS 353. This accreditation is an important milestone, not only because of what NCITS 353 addresses, but also because of its database format, which makes it instantly usable.

- Objectives**
- To provide a uniform method of collecting and managing geospatial data.
 - To reduce costly expenditures, needless duplication of efforts, and increased risk of errors on projects

Technology The SDSFIE are the only nonproprietary geographic information system (GIS) standards designed for use with the predominant commercially available off-the-shelf GIS and relational database software. SDSFIE is a standardized grouping of geographically referenced (i.e., geospatial) features (i.e., real-world features or objects depicted graphically on a map at their real-world locations (i.e., coordinates). Each geospatial feature has an "attached" attribute table containing pertinent data about the geospatial feature.

Benefits The SDSFIE provides a common format for the development of GIS, thereby cutting costs and allowing for the sharing of data sets among Federal partners, commercial/private concerns, and government installations. GIS users profit from this increased compatibility through time and cost savings, greater accuracy and consistency, and the ability to easily share geographic data among different organizations. The SDSFIE is a user-friendly, CD-based standard for use with commercially available off-the-shelf GIS and CADD software. It supports all aspects of management of facilities and installations, including environmental, site, and engineering planning.

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